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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,896	01/06/2004	Hiroki Kishi	1232-5245	5083
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MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER GE, YUZHEN	
			ART UNIT 2624	PAPER NUMBER
			NOTIFICATION DATE 12/17/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/752,896	Applicant(s) KISHI, HIROKI	
	Examiner Yuzhen Ge	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/8/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

- a. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 16-17 define a computer program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV). That is, the scope of the presently claimed a computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests canceling these two claims since there are already corresponding computer-readable medium claims (claims 18 and 19). Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5-11, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Nozawa et al (US Patent 6,587,505, cited by IDS).

Regarding claim 1, Nozawa et al teach an image processing apparatus for encoding image data in which a still picture frame of an image quality higher than a prescribed imaging quality is mixed in moving picture data composed of successive moving picture frames having the prescribed imaging quality, comprising:

first encoding means for encoding the moving picture frames in the moving picture data (102 in Fig. 1, 303 in Fig. 3, 503 in Fig. 5, 603 in Fig. 6, 803 in Fig. 8) and, with regard to the still picture frame in the moving picture data, generating moving picture part data, which has a quality equivalent to that of moving picture frames (col. 5, lines 26-33, col. 6, lines 53-57, col. 7, lines 55-59, LPF of the high resolution data, which is the moving picture part data, has the same resolution as the low resolution image, col. 10, lines 55-62), from the still picture frame and encoding the moving picture part data, thereby generating moving picture encoded data (Figs. 1, 3, 5-6, and 8-9B, col. 5, lines 4-11, both the low resolution data/moving picture frames and the LPF of the high resolution data/moving picture part data is generated by the first encoding means with equivalent quality, col. 5, lines 59-67);

second encoding means for encoding difference data, which is the result of removing the moving picture part data from the still picture frame (307 in Fig. 3, 507 in Fig. 5, 607 in Fig. 6, 809 in Fig. 8, col. 5, lines 41-52, the high frequency component is the difference data);

additional-information generating means for generating correspondence information, which correlates the moving picture part data and corresponding difference data, and identification information for specifying the moving picture part data contained in the moving picture encoded data (308 in Fig. 3, 508 in Fig. 5, 608 in Fig. 6, col. 5, lines 46-52, lines 59-67, col. 6, lines 1-8, col. 6, line 66-col. 7, line 9, col. 8, lines 1-10, lines 15-19, 22-31, col. 9, lines 6-9, col. 19, lines 48-54); and

output means for outputting the moving picture frame encoded data, the difference encoded data, the correspondence information and the identification information as result of encoding the moving picture data (Figs. 1, 3, 5-6, and 8-9B, col. 5, lines 46-52, lines 59-67, col. 6, lines 1-8, col. 6, line 66-col. 7, line 9, col. 8, lines 1-10, lines 15-19, 22-31, col. 9, lines 6-9, col. 19, lines 48-54, the discrimination information is identification information).

Regarding claim 2, Nozawa et al teach the apparatus according to claim 1, wherein the imaging quality is at least one of number of pixels and S/N ratio (col. 5, lines 26-33, col. 6, lines 53-57, col. 7, lines 55-59, col. 10, lines 55-62, the quality is number of pixels).

Regarding claim 3, Nozawa et al teach the apparatus according to claim 1, wherein said first encoding means generates the moving picture part data from the still picture frame using a discrete wavelet transform (col. 10, lines 37-54, col. 13, lines 54-62, Figs. 9A and 9B).

Regarding claim 5, Nozawa et al teach the apparatus according to claim 1, further comprising recording means for recording encoded results on a storage medium (304 in Fig. 3, 504 in Fig. 5, 604 in Fig. 6).

Regarding claim 6, Nozawa et al teach the apparatus according to claim 1, further comprising moving picture data generating means for generating the moving picture data (Fig. 17, col. 18, lines 18-51, col. 19, lines 1-18, decoding is the reverse process of encoding).

Regarding claim 7, Nozawa et al teach an image processing apparatus for decoding the encoded results generated by the image processing apparatus set forth in claim 1, comprising:

first decoding means for decoding the moving picture frame encoded data and reproducing moving picture frames and moving picture part data (Figs. 7, 10, and 15-17, decoding is the reverse process of encoding, col. 9, lines 14-26, col. 11, lines 49-67);

second decoding means for decoding the difference encoded data (Figs. 7, 10, and 15-16, the high frequency component is the difference encoded data);

searching means, which is responsive to an externally entered command to display a still picture, for searching for the moving picture part data contained in the moving picture frame encoded data based upon the identification information (Figs. 7, 10, and 15-16, col. 5, lines 59-67, col. 7, lines 12-21, col. 8, lines 22-31, col. 9, lines 2-5, col. 19, lines 48-62, it is inherent that a VCR is controlled by a user and therefore an externally entered command is given to start the search on the storage, Fig. 17, col. 18, lines 23-25, col. 19, lines 1-5); and still picture frame

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reproducing means for reproducing a still picture frame using the moving picture part data retrieved and difference data, which corresponds to this moving picture part data, retrieved based upon the identification information (Figs. 7, 10, and 15-16, col. 9, lines 50-67, Fig. 17).

Claim 8 is are the corresponding encoder and decoder apparatus claim of claims 1 and 7.

Nozawa et al teach a device with a first image processing apparatus for encoding and a second image processing apparatus for decoding (Figs. 1, 3, 5-6, and 8-9B and Figs. 7, 10, and 15-17).

Thus Nozawa et al teach claims 8 as evidently explained in the above-cited passages for claims 1 and 7.

Claims 9-11 and 13-15 are the corresponding method claims of claims 1-3 and 5-7. Nozawa et al teach a method (title, abstract). Thus Nozawa et al teach claims 9-11 and 13-15 as evidently explained in the above-cited passages for claims 1-3 and 5-7.

Claims 16 and 18, 17 and 19 are the corresponding computer program and computer readable medium claims of claims 1 and 7. Nozawa et al teach a computer program and computer readable medium (col. 17, line 51-col. 18, line 13). Thus Nozawa et al teach claims 16-19 as evidently explained in the above-cited passages for claims 1 and 7.

6. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nozawa (JP2000-209587, application number 11-10981).

Regarding claims 1 and 9, Nozawa teaches an image processing apparatus for encoding image data in which a still picture frame of an image quality higher than a prescribed imaging quality is

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mixed in moving picture data composed of successive moving picture frames having the prescribed imaging quality and the corresponding method claim (abstract), comprising:

first encoding means for encoding the moving picture frames in the moving picture data (103 in Fig. 1, 203 in Fig. 2, 303 in Fig. 3, 602 in Fig. 6) and, with regard to the still picture frame in the moving picture data, generating moving picture part data, which has a quality equivalent to that of moving picture frames (paragraphs [0034], [0044], [0053]), from the still picture frame and encoding the moving picture part data, thereby generating moving picture encoded data (paragraphs [0030]-[0036], [0054] [0060]-[0066]);

second encoding means for encoding difference data, which is the result of removing the moving picture part data from the still picture frame (107 in Fig. 1, 207 in Fig. 2, 307 in Fig. 3, 603 in Fig. 6, paragraphs [0030]-[0036], high frequency component is the difference data);

additional-information generating means for generating correspondence information, which correlates the moving picture part data and corresponding difference data, and identification information for specifying the moving picture part data contained in the moving picture encoded data (108 in Fig. 1, 208 in Fig. 2, 308 in Fig. 3, 510 in Fig. 5, 609 in Fig. 6, paragraphs [0036], [0039], [0048], [0059], [0065]); and output means for outputting the moving picture frame encoded data, the difference encoded data, the correspondence information and the identification information as result of encoding the moving picture data (Figs. 1-3 and 6, the data is outputted and stored).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nozawa (JP2000-209587, application number 11-10981) in view of Harada (US Patent 6,075,559).

Regarding claims 4 and 12, Nozawa teaches the apparatus and method of claims 1 and 9.

However they do not explicitly teach wherein first encoding means encodes the moving picture part data using quantization steps that differ from quantization steps used in encoding the moving picture frames. In the same field of endeavor, Harada teaches that an encoding means encodes moving picture part data from a still image using quantization steps that differ from quantization steps used in encoding moving picture frames (col. 5, line 60-col. 6, line 9). It is desirable to preserve image quality, i.e., highly accurate image information is provided with still images and it is desirable to be efficient in compression (col. 5, lines 60-col. 6, line 9 of Harada). Therefore it would have been obvious to one of ordinary skill in the art, at the time of invention, to use the different quantization steps for moving picture part data that is from still image and moving picture frames so that image quality can be preserved and compression is more efficient.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuzhen Ge whose telephone number is 571-272 7636. The examiner can normally be reached on 7:30am-4:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yuzhen Ge
Examiner
Art Unit 2624

WENPENG CHEN
PRIMARY EXAMINER


7/17/07